

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
2 December 2004 (02.12.2004)

PCT

(10) International Publication Number  
**WO 2004/104553 A2**

- (51) International Patent Classification<sup>7</sup>: **G01N**
- (21) International Application Number:  
PCT/US2004/015654
- (22) International Filing Date: 19 May 2004 (19.05.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/471,352 19 May 2003 (19.05.2003) US
- (71) Applicant (for all designated States except US): **HARVEST TECHNOLOGIES CORPORATION [US/US]**;  
40 Grissom Road, Suite 100, Plymouth, MA 02360 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **ELLSWORTH, James, R. [US/US]**; c/o Harvest Technologies Corporation, 40 Grissom Road, Suite 100, Plymouth, MA

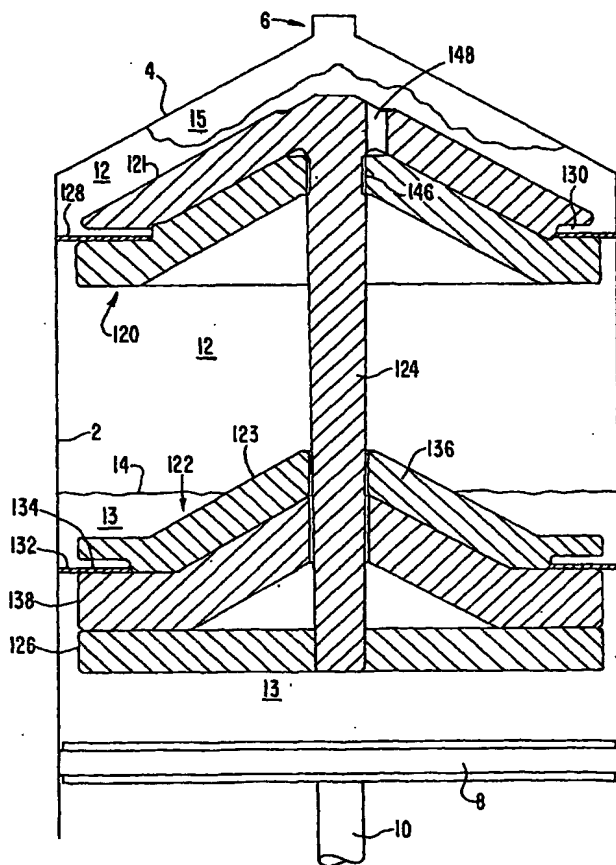
02360 (US). **MCGOVERN, Paul [US/US]**; c/o Harvest Technologies Corporation, 40 Grissom Road, Suite 100, Plymouth, MA 02360 (US). **KIBBE, Mark [US/US]**; c/o Harvest Technologies Corporation, 40 Grissom Road, Suite 100, Plymouth, MA 02360 (US).

(74) Agent: **CLARK, Conrad, J.**; Clark & Brody, 1750 K Street, N.W., Suite 600, Washington, DC 20006 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR SEPARATING FLUID COMPONENTS



(57) Abstract: A floating element for separating components of a physiological fluid comprises two parts that are relatively movable. The two parts define a prescribed volume between them when at their maximum separation, and one of the parts may be moved toward the other to express the fluid contained in the volume between the parts. The parts are made of materials having densities so that they assume a desired position in the fluid to allow selected components to be easily obtained and expressed.



(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*